

What is claimed is:

1. A capsule to hold a pharmaceutical preparation for powder inhalation which comprises a capsule body and a capsule cap, which are to be attached to one another so as to form a stable, enclosed hollow space of defined volume, the capsule body and the capsule cap being made of a water-insoluble, hydrophobic synthetic material.

2. The capsule according to claim 1, characterized in that the walls of the cap and the body are 0.1 mm to 0.5 mm thick.

3. The capsule according to claim 1, characterized in that the capsule can withstand a force acting upon its longitudinal axis and its transverse axis of up to 15 N.

4. The capsule according to claim 1, characterized in that the Shore hardness D of the synthetic material is in the range from 65 to 73.

5. The capsule according to claim 1, characterized in that the wall of the capsule has a steam permeability of less than  $1.3 \times 10^{-14}$  kg/(m<sup>2</sup> s Pa).

6. The capsule according to claim 5, characterized in that the wall of the capsule has a steam permeability of  $1.5 \times 10^{-16}$  to  $2 \times 10^{-16}$  kg/(m<sup>2</sup> s Pa).

7. The capsule according to claim 1, characterized in that the synthetic material is polyethylene, polycarbonate, polyester, polypropylene or polyethyleneterephthalate.

8. The capsule according to claim 7, characterized in that the synthetic material is polyethylene with a density of 9,000-10,000 kg/m<sup>3</sup>.

9. The capsule according to claim 1, characterized in that one or more elevations or recesses are located on the inner jacket of the cap and one or more recesses or elevations are located on the outer jacket of the body, these elevations or recesses being arranged so that the elevations engage with the recesses when the capsule is closed, by attaching the capsule body and the capsule cap.

10. The capsule according to claim 1, characterized in that a bulge runs in an annular shape around the outside of the body perpendicular to the connecting axis of the cap and the body, the side of the bulge which is orientated towards the open end of the body standing practically at right angles to the outer wall of the body.

11. The Capsule according to claim 1, characterized in that the capsule body and capsule cap are both made of high density polyethylene and are both in the shape of a cylinder of round cross section with a convex closed end, so that the elongation of the capsule (distance from the closed end of the body to the closed end of the cap in relation to the diameter when the capsule is closed) is greater than 1.

12. The capsule according to claim 12, characterized in that the joint between the body and cap, or the gap, is sealed by welding, adhesive bonding, wrapping or covering the cap with a protective film.

13. The capsule according to claims 12, characterized in that the joint between the body and cap, or the gap, is sealed by filling with a pharmaceutically acceptable filler.

14. The capsule according to claim 13, characterized in that the filler is Eudragit.

15. The capsule according to claim 1 which further comprises in the enclosed hollow space a pharmaceutical preparation comprising cromoglycic acid, reproterol, beclomethasone, terbutaline, albuterol, salmeterol, ketotifen, orciprenaline, fluticasone, ipratropium, dexamethasone, bambuterol, tiotropium, budesonide, fenoterol, clenbuterol, prednisolone, prednisone, prednylidene, methylprednisolone, formoterol, nedocromil, insulin, ipratropium bromide, tiotropium bromide, a salt thereof or a mixture thereof or another cortisone preparation or atropine derivative, which pharmaceutical preparation is suitable for inhalation.